

# **9th National Clean Cites Conference and Exposition Palm Springs, CA**

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**Dana Albers  
Fleet Manager  
Hennepin County  
Minneapolis, Minnesota  
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# 9th National Clean Cities Conference

- ∩ **Hennepin County**
- ∩ **Central Mobile Equipment Division**
- ∩ **E85 Fuel**
- ∩ **BioDiesel Fuel**
- ∩ **Hybrids Vehicles**
- ∩ **Re-Refined Oils and Greases**
- ∩ **Questions**



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## ∞ **Hennepin County**

∞ Central Mobile Equipment Division

∞ E85 Fuel

∞ Biodiesel Fuel

∞ Hybrids Vehicles

∞ Re-Refined Oils and Greases

∞ Questions

# Hennepin County

- Population - 1,116,200 22.7% of State
- Square Miles - 611 563 Square Miles Land
- 104 Lakes - 48 Square Miles of Lakes
- Cities - 45
- Lane miles - 564
- Bridges - 137
- Signs - 51,000





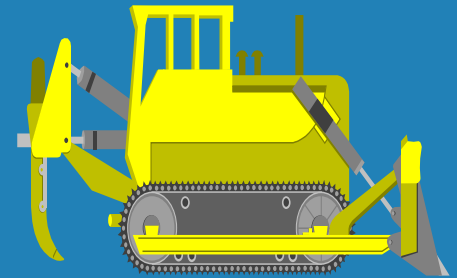
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# Central Mobile Equipment Division

- ∩ **1028 Pieces of Equipment**
- ∩ **30 Employees**
- ∩ **Internal Leasing Company**
- ∩ **Expense Budget Under \$8M**
- ∩ **350,000 Gallons Diesel Fuel**
- ∩ **420,000 Gallons Unleaded Fuel**





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# E85 Fuel

- ∩ **67 Units**
- ∩ **Fuel / Driveability Performance**
- ∩ **Fueling Location**
- ∩ **Wright Express Fuel Cards**
- ∩ **Future Growth  
Units  
Locations**





# E85 Fuel

- ∞ Renewable
- ∞ Lower Emission
- ∞ Lower Fuel Economy



# E85 Fuel

## ∞ Problems

**Number of Stations**

**Identification of Vehicles**

**Cost**

## ∞ Solution

**Communication**

**Marketing**





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# BioDiesel Fuel

∩ **B100**

**Soybean    Cooking Oil**

∩ **Blending With Petroleum Diesel**  
**B2 - B20**

∩ **Advantages**

**No Engine Modification**  
**Increases Lubricity**  
**Lowers Emissions**



# BioDiesel Fuel

## Ω April 1998 Test (B20)

**Soybean based**

**17 Months of Testing - Two winters**

**24,800 Gallons**

## Ω November 2001 Test (B20)

**50/50 Used Cooking Oil & Soybean**

**6 Months of Testing**

**5,604 Gallons**



# BioDiesel Fuel

- ∩ Oil Sampling
- ∩ Filters
- ∩ Temperatures
- ∩ Six Identical Trucks
- ∩ Fuel Mileage
- ∩ Cold Starting





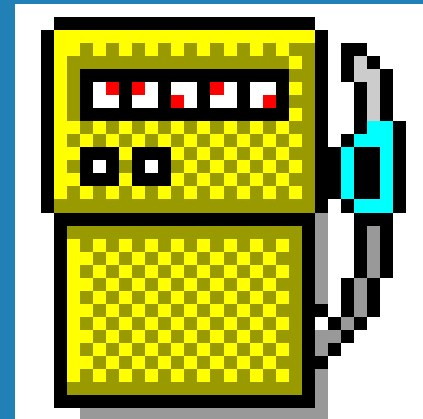
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# Hybrid Vehicles

- ∞ **Four Toyota Prius**
- ∞ **Fuel Economy**
- ∞ **Drivers Evaluation**
- ∞ **Performance**
- ∞ **Future Plans**







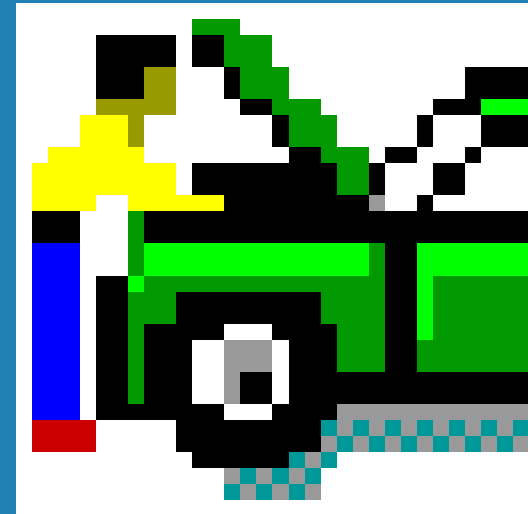
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# Re-Refined Oils and Greases

- ∞ **Changing All Oils and Grease**
- ∞ **Cost**
- ∞ **Benefits**
- ∞ **Re-Useable Oil Filters**
- ∞ **Oil Sampling**





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# Alternative Fuels

## Questions

